

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-3 (Canceled)

Claim 4 (Currently Amended) ~~The self-booting software defined radio (SDR) module according to claim 1, further comprising a multi-port crossbar coupled to said front-end unit.~~

A self-booting software defined radio (SDR) module that interfaces with a host system, said module comprising:

_____ a modulation/demodulation section with a stored run-time kernel, wherein a processing unit of said modulation/demodulation section executes said run time kernel;

_____ an interface mechanism coupling said host system to said module, wherein said host system provides a plug-and-play capability and a set of reconfiguration information, and wherein said interface mechanism is a plug-and-play interface mechanism;

_____ a front end unit receiving communications signals and processing said communications signals using said reconfiguration information; and
_____ a multi-port crossbar coupled to said front end unit.

Claim 5 (Currently Amended) ~~The self-booting software defined radio (SDR) module according to claim 1, modulation/demodulation section further comprises a high speed fabric.~~

A self-booting software defined radio (SDR) module that interfaces with a host system, said module comprising:

_____ a modulation/demodulation section with a stored run-time kernel, wherein a processing unit of said modulation/demodulation section executes said run time kernel;

an interface mechanism coupling said host system to said module, wherein said host system provides a plug-and-play capability and a set of reconfiguration information, and wherein said interface mechanism is a plug-and-play interface mechanism; and

a front end unit receiving communications signals and processing said communications signals using said reconfiguration information; said modulation/demodulation section comprising a high speed fabric.

Claims 6-12 (Canceled)

Claim 13 (Previously Presented) A software reconfigurable radio/wireless module employing a software communications architecture (SCA), comprising:

at least one processor unit;

at least one memory unit coupled to said processor unit by a control bus;

a plurality of reconfigurable elements;

an interface mechanism for transferring reconfiguration information from a host device to said reconfigurable elements, wherein said interface mechanism is a plug-and-play interface mechanism;

at least one radio frequency interface block; and

at least one multi-port reconfigurable crossbar switch with bi-directional ports coupling to said radio frequency interface block and to said processor unit.

Claim 14 (Previously Presented) The software reconfigurable radio/wireless module according to claim, 13 wherein said radio frequency interface comprises at least one switchably coupled antenna.

Claim 15 (Previously Presented) The software reconfigurable radio/wireless module according to claim, 13 wherein said multi-port crossbar switch uses a serial digital interface.

Claim 16 (Previously Presented) The software reconfigurable radio/wireless module according to claim, 13 wherein said reconfigurable elements comprise reconfigurable transceivers.

Claim 17 (Previously Presented) The software reconfigurable radio/wireless module according to claim, 13 wherein said multi-port crossbar switch uses a serial digital interface.

Claim 18 (Previously Presented) A switched fabric software defined radio module, comprising:

- at least two reconfigurable logic devices on said module, wherein said reconfigurable logic devices are each comprising:

- a front end unit for transmission and reception of information signals;

- a processing unit;

- a memory section;

- a crossbar switch; and

- an internal fabric interface, wherein said processing unit, said memory section, and said crossbar switch are coupled to said internal fabric interface.

Claim 19 (Original) The switched fabric software defined radio module according to claim 18, wherein said crossbar switch is configured as a ring.

Claim 20 (Previously Presented) The switched fabric software defined radio module according to claim 18, wherein said devices further comprises a software communications architecture (SCA) run time kernel.